

Appln. No. 10/220,034
Amd. dated November 21, 2003
Reply to Office Action of June 23, 2003

Amendments to the Specification

Page 5, lines 1-23, please replace with the
following amended paragraphs:

BRIEF DESCRIPTION OF THE DRAWINGS

In order to understand the invention and to see how it may be carried out in practice, preferred embodiments will now be described, by way of non-limiting examples only, with reference to the accompanying drawings, in which:

A. ~~Fig. 1~~ Figs. 1a-1d ~~shows~~ show an indwelling device having a tearable cover in accordance with one embodiment of the invention;

~~Fig. 2~~ Figs. 2a-2c ~~shows~~ show an indwelling device having a cutable cover in accordance with another embodiment of the invention;

~~Fig. 3~~ Figs. 3a-3d ~~shows~~ show an indwelling device having a rollable cover in accordance with another embodiment of the invention;

~~Fig. 4~~ Figs. 4a-4c ~~shows~~ show an indwelling device having a helical cover in accordance with another embodiment of the invention;

~~Fig. 5~~ Figs. 5a-5e ~~shows~~ show an indwelling device having a cover attached with internal balloons in accordance with another embodiment of the invention;

Fig. 6 shows use of a clamp securing the distal end of a cover to a surface-i

~~Fig. 7~~ Figs. 7a and 7b ~~shows~~ show an indwelling device having a cover attached on an inner surface;

Appln. No. 10/220,034
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~~Fig. 8~~ Figs. 8a-8d ~~shows~~ show an indwelling device having a tearable cover in accordance with another embodiment of the invention;

~~Fig. 9~~ Figs. 9a-9c ~~shows~~ show a system for preparing a cover on a ~~mandrill~~ mandrel in accordance with one embodiment of the invention; and

~~Fig. 10~~ Figs. 10a-10b ~~shows~~ show a system for transferring a cover from a ~~mandrill~~ mandrel onto a device.

Page 7, spanning lines 26-30 (last paragraph) continuing to page 8, lines 1-25, please replace with the following amended paragraphs:

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Fig. 9 shows a system, generally indicated by 900, for preparing the cover 110. A reservoir 905 contains a first liquid suspension 910 for preparing the first material in the cover 110. A cylindrical ~~mandrill~~ mandrel 915 is used upon which the cover 110 is to be formed. The ~~mandrill-mandrel~~ 915 has a diameter corresponding to the inner diameter of the cover 110. A length of the ~~mandrill~~ mandrel 915 is submerged in the suspension 910. As the ~~mandrill~~ mandrel 915 is withdrawn from the suspension 910, a layer 920 of the first material coating the ~~mandrill~~ mandrel is formed.

A wiper blade 925 is used to remove a portion of the coating 920 as the ~~mandrill~~ mandrel 915 is withdrawn from the suspension 910. Above the wiper 925, a narrow strip 930 of the surface of the ~~mandrill~~ mandrel 915 thus becomes exposed.

A second reservoir 935 contains a second suspension 940 that is used to form the second material of the

Appln. No. 10/220,034
Amd. dated November 21, 2003
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coating 110. The second suspension 940 is delivered to the surface of the ~~mandrill~~ mandrel 915 through a tube 945. A nozzle 950 applies the second suspension to the exposed strip 930 of the ~~mandrill~~ mandrel 915 surface, as the ~~mandrill~~ mandrel 915 is withdrawn from the first suspension 910. The second suspension 940 thus forms a coating 955 on the ~~mandrill~~ mandrel 915 in the exposed strip 930 created by the wiper 925.

Fig. 9c shows the ~~mandrill~~ mandrel 915 after having been removed from the reservoir 905. A cylindrical coating 960 has been formed on the ~~mandrill~~ mandrel 915. The coating consists of the first portion 920 formed by the first suspension 910 and the second portion 955 formed by the second suspension 940. The ~~mandrill~~ mandrel 915 is then placed in an oven in order to allow the coating to cure so as to form the cover 110. The first suspension 910 thus formed the first material of the cover, and the second suspension 940 formed the second material.

Fig. 10 shows a system, generally indicated by 1000, for transferring the cover 110 from the ~~mandrill~~ mandrel 915 to the shaft 105 of the device 100. The system 1000 is shown in plan view in Fig. 10a and in cross-section in Fig. 10b. The system 1000 has a housing 1005. A cylindrical tube 1010 passes through the housing 1005 and has a diameter configured to alternately receive the coated ~~mandrill~~ mandrel 915 and the shaft 105 of the device 100, as described below.

Page 9, lines 3-17, please replace with the following amended paragraphs:

Appl. No. 10/220,034
Amd. dated November 21, 2003
Reply to Office Action of June 23, 2003

Fig. 10c shows the system 1000 after the ~~mandrill~~ mandrel 915 has been inserted into the cylindrical tube 1010. As described above, the ~~mandrill~~ mandrel 915 is contained in the cover 110 that is to be transferred from the ~~mandrill~~ mandrel 915 to the shaft 105 of the device 100.

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As shown in Fig. 10d, the ends 128 of the cover 110 are then rolled off the ~~mandrill~~ mandrel 915 and onto the ends of the tube 1010, thus sealing the ends of the cylinder 1010. The chamber 1020 is then evacuated causing the cover 110 to dissociate from the ~~mandrill~~ mandrel 915 and associated with ~~the~~ the inner surface of the cylinder 1010, as shown in Fig. 10e. Dissociation of the cover 110 from the ~~mandrill~~ mandrel 915 may be enhanced if the ~~mandrill~~ mandrel is formed with a hollow core 1030 that is confluent with the exterior by pores 1035 in the wall of the ~~mandrill~~ mandrel 915, as shown in Fig. 10f. A source of positive pressure (not shown) is applied to the core 1030 by means of a tube 1040. The ~~mandrill~~ mandrel is then removed from the cylinder 1010 leaving the cover 110 mounted on the inner surface of the cylinder 1010, as shown in Fig. 10f.

Page 13, last paragraph, please replace with the following amended paragraph:

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Fig. 5a shows an indwelling device 500 in accordance with another embodiment of the invention. The device 500 has a proximal end 502, a distal end 504, and a cylindrical shaft 505 that may be solid or hollow. The shaft 505 is contained in an outer cover 510 having the general shape of a thin cylindrical shell. The

Appln. No. 10/220,034
Amd. dated November 21, 2003
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outer cover 510 is formed from a biocompatible, rigid material, such as plastic or metal. One or more balloons 515 are located in a space 520 formed between the outer cover 510 and the shaft 505. In Fig. 5a, the balloons are shown in their deflated state. As shown in Fig. 5b, before inserting the device 500 into the body, the balloons 515 are inflated with a fluid such as air or water. A syringe 525 containing the fluid 530 is inserted into a valve 570.
